Application No.: 10/587,783

Amendment Dated March 23, 2009

Reply to Office Action of December 23, 2008

Remarks/Arguments:

Claims 1-6 are pending in the above-identified application. By the present Amendment, claims 1-6 are amended.

Rejections under 35 U.S.C. §112, Second Paragraph

Claim 4 is rejected under 35 U.S.C. §112, second paragraph, for being indefinite. In particular, the Office Action asserts that the recitation of "the branch directions" lacks antecedent basis. By the present Amendment, claim 4 is amended to remove the recitation of "branch" and to reword features of the claim. Applicant respectfully asserts that claim 4 no longer includes recitations that lack antecedent basis. Withdrawal of the rejection and reconsideration of the claim are respectfully requested.

Rejections under 35 U.S.C. §103(a)

Claims 1-6 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,428,545 to Maegawa et al. ("Maegawa"). It is respectfully asserted that claims 1-6 are not unpatentable in view of Maegawa.

In particular, Maegawa does not disclose or suggest the following features of claim 1:

vehicle information acquisition unit configured to acquire vehicle information from a plurality of vehicles . . .

branch determination unit configured to determine a direction of a vehicle of the plurality of vehicles exiting an intersection based on (1) a position of the intersection stored in a map database and (2) the vehicle information of the vehicle, the vehicle capable of exiting the intersection in more than two directions . . .

intersection traffic information calculation unit configured to calculate, from the vehicle information of the plurality of vehicles, a waiting time or a jam length . . .

Support for these features and similar features recited in claims 4-6 may be found throughout the above-identified application and, for example, at page 17, lines 13-19; page 18, lines 1-3; page 20, lines 20-25; page 27, lines 13-18; and Figs. 1, 2 and 6. No new matter has been added.

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1. Maegawa Does Not Disclose or Suggest All of the Features of Claim 1

Maegawa describes a vehicle guidance system mounted in a vehicle. The vehicle guidance system includes a present position detecting means 21, a traffic congestion detecting means 23, and a congested place estimation means 26. (See Maegawa, Col. 4, lines 11-28.) The present position detecting means 21 detects a present position of the vehicle, and the traffic congestion detecting means 23 determines whether the vehicle is travelling in congested traffic based upon the speed of the vehicle. (See Maegawa, Col. 4, lines 14-15 and 17-18; Col. 5, lines 12-17.) If the vehicle is travelling in congested traffic, the congested place estimation means 26 estimates congestion information about alternate routes based upon the physical characteristics of the roads along the alternate routes. (See Maegawa, Col. 5, lines 30-35.) A new route is recommended based on the congestion information estimated along the alternate routes. (See Maegawa, Col. 7, lines 29-37.)

A procedure for estimating a place of congestion is described with respect to Fig. 10. (See Maegawa, Col. 9, lines 7-9.) The congested place estimating means 26 samples a predetermined number of junctions between the present location of the vehicle along a route. (See Maegawa, Col. 9, lines 9-14.) The congested place detecting means 26 then determines the respective "classes of the roads" that intersect the route at these junctions. (See Maegawa, Col. 9, lines 24-26.) The congested place detecting means 26 then attaches "congestion estimation factors" to each of the junctions based on the "classes of the roads." (See Col. 9, lines 28-31.) Examples of "classes of the roads" include (1) an expressway, (2) a national highway, (3) a local road, etc. (See Maegawa, Col. 9, lines 35-39.) The junction with the highest congestion estimation factor is determined to be the source of congestion. (See Maegawa, Col. 9, lines 49-50.) The congestion factors are used to estimate the length of congestion between a present place of the vehicle and the estimated source of the congestion. (See Maegawa, Col. 9, lines 59-66.)

As described above, Maegawa describes **estimating congestion** along possible alternate vehicle routes **based upon characteristics of roads** intersecting such other routes. (See Maegawa, Col. 5, lines 30-35; Col. 9, lines 6 through Col. 10, line 2.) Further, Maegawa describes **estimating a source of congestion based upon characteristics of roads** intersecting a specified route. (See Maegawa, Col. 9, lines 6-66.) Finally, Maegawa describes

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that a vehicle is determined to be traveling in congested traffic based upon a speed of the vehicle. (See Maegawa, Col. 4, lines 14-15 and 17-18; Col. 5, lines 12-17.) Maegawa does not disclose or suggest "calculat[ing], from the vehicle information of the plurality of vehicles, a waiting time or a jam length," as recited in claim 1. Rather, Maegawa describes estimating congestion based upon road characteristics and determining whether a vehicle is in congested traffic based upon that single vehicle's speed. Accordingly, Maegawa does not disclose or suggest all of the above-quoted features of claim 1 relating to the "vehicle information acquisition unit" or the "intersection traffic information calculation unit."

Further, Maegawa does not disclose or suggest the above-quoted feature of claim 1 relating to the "branch determination unit." As discussed above, Maegawa describes estimating congestion along possible alternate vehicle routes and estimating a source of congestion using characteristics of roads that intersect the route. Such estimations are not determinations of "a direction of the vehicle of the plurality of vehicle exiting an intersection . . . , the vehicle capable of exiting the intersection in more than two directions." Accordingly, Maegawa does not disclose or suggest all of the above-quoted features of claim 1 relating to the "branch determination unit."

2. Maegawa Does Not Include All of the Advantage of Claim 1

The device of claim 1 includes a number of advantages over the system described in Maegawa. In particular, claim 1 recites acquiring vehicle information from a plurality of vehicles and using such vehicle information to calculate a waiting time or a jam length. Maegawa, on the other hand, describes that congestion along a route is estimated using characteristics of roads that intersect the route. Further, Maegawa describes that a vehicle is determined to be traveling in congested traffic based upon the speed of that one vehicle. Maegawa does not disclose or suggest calculating "a waiting time or a jam length" from "the vehicle information from the plurality of vehicles," as required by claim 1. (Emphasis added.) Because claim 1 recites that a waiting time or a jam length is calculated using vehicle information from a plurality of vehicles, the calculated information is more precise that the information which is only estimated in Maegawa or determined from a single vehicle's speed.

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Further, as described above, Maegawa's estimation depends upon physical characteristics of roads. Only information on such characteristics that is stored in a road data storage means 28 is available to form the basis of such estimation. (See Maegawa, Col. 9, lines 26-27.) Thus, Maegawa's system is dependent upon information being present in the road data storage means 28. Claim 1 does not have such a disadvantage as a waiting time or a jam length may be calculated for a direction not included on a map or within map data. Thus, the device recited in claim 1 is more flexible than Maegawa's system.

3. Concluding Remarks on the Claim Rejections

In view of the foregoing, Applicant respectfully asserts that Maegawa does not disclose or suggest all of the above-quoted features of clam 1. Withdrawal of the rejection and reconsideration and allowance of the claim are respectfully requested.

Claims 2 and 3 depend from claim 1 and, therefore, include all of the features thereof. Thus, for at least the same reasons as discussed above with respect to claim 1, Applicant respectfully asserts that Maegawa does not disclose or suggest all of the features of claims 2 and 3. Withdrawal of the rejections and reconsideration and allowance of these claims are respectfully requested.

Claims 4-6, while not identical to claim 1, include features similar to the above-quoted features of claim 1 that are not disclosed or suggested by Maegawa. Accordingly, for at least some of the reasons discussed above with respect to claim 1, Applicant respectfully asserts that Maegawa does not disclose or suggest all of the features of claims 4-6. Withdrawal of the rejections and reconsideration and allowance of these claims are respectfully requested.

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Conclusion

It is respectfully requested that the above-identified application is in condition for allowance, which action is respectfully requested.

Respectfully submitted,

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